UTAH CTE SKILL CERTIFICATION

AUTOMOTIVE SERVICE TECHNICIAN
STUDENT PERFORMANCE EVALUATION
ELECTRONICS/ELECTRICAL

Student Name: _____

The performance evaluation is a required component of the Skill Certification process. Each student **must be evaluated** on the required performance standards. Performance standards may be completed and **evaluated anytime during the course**.

- Students should be aware of their progress throughout the course, so that they can concentrate on the objectives that need improvement.
- Students should be encouraged to repeat the objectives until they have performed at a minimum of a number 1 or 2 on the rating scale (moderately to highly competent level).
  - 1= highly competent — Successfully demonstrated without supervision
  - 2= moderately competent — Successfully demonstrated with limited supervision
  - 3= limited competence — Demonstrated with close supervision
  - 4= not competent — Demonstration requires direct instruction and supervision
- When a standard has been achieved at a minimum of 80% (moderately to highly competent level). "Y" (Y=YES) is recorded on the last line of that standard, on the performance evaluation sheet. If a student does not achieve a 1 or a 2 (moderately to highly competent level), then "N" (N=NO) is recorded on the last line of that standard.
- All performance standards MUST be completed and evaluated prior to the written test.
- The **teacher** will bubble in "A" on the answer sheet for item #81 for students who have achieved "Y" on **ALL** performance standards.
- The **teacher** will bubble in "B" on the answer sheet for item #81 for students who have **ONE or more "N's"** on the performance standards.
- The signed performance evaluation sheet(s) **MUST** be kept in the teachers' file for two years.
- A copy is also kept on file with the school's ATE Skill Certification testing coordinator for two years.

Students who achieve a 1 or a 2 (moderately to highly competent) on **ALL** performance standards and 80% on the written test will be issued an ATE Skill Certificate.

470604-01 Students will be able to understand general shop safety	**1**	**2**	**3**	**4**
Pass the safety test with a score of 100%.				
Identify the different types and hazards of solvents used in automotive.				
Identify the different types, purposes, and hazards of automotive greases, oils, and additives.				
Identify precautions in the use, handling, and storage of various automotive solvents, cleaners, oils, greases, and additives.				
Identify the gasses encountered in the automotive field and the hazards they present.				
Identify the hazards and control of asbestos dust.				
Comply with safety rules for working with automotive chemicals (MSDS).				

The instructor must retain a copy of this Student Performance Evaluation for two years after the student has left the program.

Instructor Signature: _____ Date: _____

Student Signature: _____ Date : _____

School: _____

470604- Students will be able to understand, identify, and properly diagnosis general electrical system problems	**1**	**2**	**3**	**4**
Complete work order to include customer information, vehicle identifying information, customer concern, related service history, cause, and correction. P1				
Identify and interpret electrical/electronic system concern; determine necessary action. P-1				
Research applicable vehicle and service information, such as electrical/electronic system operation, vehicle service history, service precautions, and technical service bulletins. P-1				
Locate and interpret vehicle and major component identification numbers (VIN, vehicle certification labels, and calibration decals). P-1				
Diagnose electrical/electronic integrity of series, parallel and series-parallel circuits using principles of electricity (Ohm's Law). P-1				
Use wiring diagrams during diagnosis of electrical circuit problems. P-1				
Demonstrate the proper use of a digital multimeter (DMM) during diagnosis of electrical circuit problems. P-1				
Check electrical circuits with a test light; determine necessary action. P-2				
Measure source voltage and perform voltage drop tests in electrical/electronic circuits using a voltmeter; determine necessary action. P-1				
Measure current flow in electrical/electronic circuits and components using an ammeter; determine necessary action. P-1				
Check continuity and measure resistance in electrical/electronic circuits and components using an ohmmeter; determine necessary action. P-1				
Check electrical circuits using fused jumper wires; determine necessary action. P-2				
Locate shorts, grounds, opens, and resistance problems in electrical/electronic circuits; determine necessary action. P-1				
Measure and diagnose the cause(s) of excessive key-off battery drain (parasitic draw); determine necessary action. P-1				
Inspect and test fusible links, circuit breakers, and fuses; determine necessary action. P-1				
Inspect and test switches, connectors, relays, solenoid solid state devices, and wires of electrical/electronic circuits; perform necessary action. P-1				
Remove and replace terminal end from connector. P-1				
Repair connectors and terminal ends. P-1				
Repair wiring harness (including CAN/BUS systems). P-1				
Perform solder repair of electrical wiring. P-1				
Identify location of hybrid vehicle high voltage circuit disconnects (service plug) location and safety procedures. P-3				

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470604- Students will be able to understand, identify, and properly diagnosis the battery problems.	1	2	3	4
Perform battery state of charge test; determine needed action. P-1				
Perform battery capacity test (or conductance test); confirm proper battery capacity for vehicle application; determine necessary action. P-1				
Maintain or restore electronic memory functions. P-1				
Inspect, clean, fill, or replace battery. P-1				
Perform slow/fast battery charge. P-2				
Inspect and clean battery cables, connectors, clamps, and hold downs; repair or replace as needed. P-1				
Start a vehicle using jumper cables and a battery, or auxiliary power supply. P-1				
Identify high voltage circuits of electric or hybrid electric vehicle and related safety precautions. P-3				
Identify electronic modules, security systems and/or radios that require reinitialization or code entry following battery disconnect. P-2				
Identify hybrid vehicle auxiliary (12v) battery service, repair and test procedures. P-3				

470604- Students will be able to understand, identify, and properly diagnosis and repair starting systems.	1	2	3	4
Perform starter current draw tests; determine necessary action. P-1				
Perform starter circuit voltage drop tests; determine necessary action.P-1				
Inspect and test starter relays and solenoids; determine necessary action. P-2				
Remove and install starter in a vehicle. P-1				
Inspect and test switches, connectors, and wires of starter control circuits; perform necessary action. P-2				
Differentiate between electrical and engine mechanical problems that cause a slow-crank or no-crank condition. P-2				

470604- Students will be able to understand, identify, and properly diagnosis and repair charging system.	1	2	3	4
Diagnose charging system problems that cause undercharge, no charge, or overcharge condition. P-2				
Inspect and adjust generator drive belts; replace as needed. P-2				
Inspect and test voltage regulator; replace as needed. P-2				
Remove, inspect, and replace/reinstall generator. P-2				
Disassemble, clean, inspect, and test generator components; replace as needed. P-2				

470604- Students will be able to understand, identify, and properly diagnosis and repair lighting systems.	1	2	3	4
Diagnose the cause of brighter than normal, intermittent, dim, or no light operation; determine necessary action. P-1				
Inspect, replace, and aim headlights and bulbs. P-2				
Inspect and diagnose incorrect turn signal or hazard light operation; perform necessary action. P-2				
Identify system voltage and safety precautions associated with high intensity discharge headlights. P-3				

470604- Students will be able to understand, identify, and properly diagnosis repair gauges, warning devices, and driver information systems.	1	2	3	4
Inspect and test gauges and gauge sending units for cause of intermittent, high, low, or no gauge readings; determine necessary action.. P-1				
Inspect and test connectors, wires, and printed circuit boards of gauge circuits; determine necessary action. P-3				
Diagnose the cause of incorrect operation of warning devices and other driver information systems; determine necessary action. P-1				
Inspect and test sensors, connectors, and wires of electronic (digital) instrument circuits; determine necessary action. P-3				

470604- Students will be able to understand, identify, and properly diagnosis and repair horn and wiper/washer.	1	2	3	4
Diagnose incorrect horn operation; perform necessary action.. P-2				
Diagnose incorrect wiper operation; diagnose wiper speed control and park problems; perform necessary action. P-2				
Diagnose incorrect washer operation; perform necessary action. P-1				

470604- Students will be able to understand, identify, and properly diagnosis and repair accessories.	1	2	3	4
Diagnose incorrect operation of motor-driven accessory circuits; determine necessary action. P-2				
Diagnose incorrect heated glass, mirror, or seat operation; determine necessary action. P-2				
Diagnose incorrect electric lock operation; determine necessary action. P-2				
Diagnose incorrect operation of cruise control systems; determine necessary action. P-3				
Diagnose supplemental restraint system (SRS) concerns; determine necessary action. (Note: Follow manufacturer's safety procedures to prevent accidental deployment.) P-1				
Disarm and enable the airbag system for vehicle service. P-1				
Diagnose radio static and weak, intermittent, or no radio reception; determine necessary action. P-3				
Remove and reinstall door panel. P-1				
Diagnose body electronic system circuits using a scan tool; determine necessary action. P-2				
Check for module communication (CAN/BUS) errors using a scan tool. P-3				
Diagnose the cause of false, intermittent, or no operation of anti-theft systems. P-2				

470604-09 Students will be able to understand the importance of employability and work habits.	1	2	3	4
Integrity				
Punctuality				
Staying on task				
Productive team worker				
Leadership				

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